CLAIMS

What is claimed is:

- 1 1. A method of performing serialization of at least a portion of an object model
- 2 comprising at least one namespace, comprising:
- 3 searching for an ancestor namespace based on a current namespace, the ancestor
- 4 namespace being associated with an ancestor prefix and an ancestor uniform resource
- 5 identifier (URI), the current namespace being associated with a current prefix and current
- 6 URI, such that the ancestor prefix matches the current prefix; and
- when the current namespace is an implicit no default namespace and the ancestor
- 8 namespace is an explicit default namespace based on, at least in part, the ancestor prefix,
- 9 generating a serialized namespace declaration for the current namespace.
- 1 2. The method of claim 1 wherein the serialized namespace declaration is a
- 2 serialized XML namespace declaration.
- 1 3. The method of claim 1 wherein a stack stores the ancestor namespaces, and said
- 2 searching searches the stack for the ancestor prefix, and further comprising:
- pushing the current prefix and current URI onto the stack.
- 1 4. The method of claim 1 further comprising:
- when no ancestor namespace has an ancestor prefix that matches the current
- 3 prefix, or when an ancestor namespace matches the current prefix and the ancestor URI is
- 4 different from the current URI, generating a serialized namespace declaration for the
- 5 current namespace.
- 1 5. The method of claim 1 wherein the object model is associated with a query,
- 2 further comprising:
- preprocessing the query to identify any implicit no default namespaces.

- 1 6. The method of claim 5 wherein said generating generates the serialized
- 2 namespace declaration when the implicit no default namespace is not a top constructor at
- 3 the top query block, wherein the serialized namespace declaration is a no default
- 4 namespace.
- 1 7. The method of claim 1 wherein the object model comprises at least one element,
- 2 and a current tagging template represents the element, the tagging template having a
- 3 pointer to a previous namespace declaration in an ancestor tagging template, wherein said
- 4 searching searches for the ancestor namespace using the pointer.
- 1 8. The method of claim 7 wherein the tagging template further comprises an
- 2 implicit-no-default indicator to indicate that a namespace declaration is implicit no
- 3 default, and
- 4 wherein said generating generates the serialized namespace declaration for the
- 5 implicit no default namespace when the implicit-no-default indicator indicates that the
- 6 current namespace is implicit no default.
- 1 9. The method of claim 1 further comprising:
- 2 hashing the current prefix to an index of a hash anchor array, wherein said
- 3 searching accesses the hash anchor array for the ancestor namespace.
- 1 10. The method of claim 1 further comprising:
- 2 passing a template-chaining data structure comprising a pointer to a previous
- 3 template-chaining data structure and also comprising a pointer to a namespace of a
- 4 template, wherein said searching uses said template-chaining data structure to find the
- 5 ancestor namespace declaration.

- 1 11. An article of manufacture comprising a computer program usable medium
- 2 embodying one or more instructions executable by a computer for performing a method
- 3 of serializing at least a portion of an object model comprising at least one namespace, the
- 4 method comprising:
- 5 searching for an ancestor namespace based on a current namespace, the ancestor
- 6 namespace being associated with an ancestor prefix and an ancestor uniform resource
- 7 identifier (URI), the current namespace being associated with a current prefix and current
- 8 URI, such that the ancestor prefix matches the current prefix; and
- 9 when the current namespace is an implicit no default namespace and the ancestor
- namespace is an explicit default namespace based on, at least in part, the ancestor prefix,
- generating a serialized namespace declaration for the current namespace.
- 1 12. The article of manufacture of claim 11 wherein the serialized namespace
- 2 declaration is a serialized XML namespace declaration.
- 1 13. The article of manufacture of claim 11 wherein a stack stores the ancestor
- 2 namespaces, said method further comprising:
- pushing the current prefix and URI onto the stack, wherein said searching
- 4 searches the stack for the ancestor prefix.
- 1 14. The article of manufacture of claim 11, said method further comprising:
- when no ancestor namespace has an ancestor prefix that matches the current
- 3 prefix, or when an ancestor namespace matches the current prefix and the ancestor URI is
- 4 different from the current URI, generating a serialized namespace declaration for the
- 5 current namespace,
- 1 15. The article of manufacture of claim 11 wherein the object model is associated
- with a query, said method further comprising:
- 3 preprocessing the ouery to identify the implicit no default namespace.

- 1 16. The article of manufacture of claim 15 wherein said generating generates the
- 2 serialized namespace declaration when the implicit no default namespace is not a top
- 3 constructor at a top query block, wherein the serialized namespace declaration is a no
- 4 default namespace.
- 1 17. The article of manufacture of claim 11 wherein the object model comprises at
- 2 least one element, and a current tagging template represents the element, the tagging
- 3 template having a pointer to a previous namespace declaration in an ancestor tagging
- 4 template, wherein said searching searches for the ancestor namespace using the pointer.
- 1 18. The article of manufacture of claim 17 wherein the tagging template further
- 2 comprises an implicit-no-default indicator to indicate that a namespace is implicit no
- default, further comprising determining whether the current namespace is implicit no
- 4 default based on the implicit-no-default indicator.
- 1 19. The article of manufacture of claim 11, said method further comprising:
- 2 hashing the current prefix to an index of a hash anchor array, wherein said
- 3 searching accesses the hash anchor array for the ancestor namespace.
- 1 20. The article of manufacture of claim 11, said method further comprising:
- 2 passing a current template-chaining data structure comprising a pointer to a
- 3 previous template-chaining data structure and also comprising a pointer to the namespace
- 4 declaration of a template, wherein said searching uses said current template-chaining data
- 5 structure to find the ancestor namespace declaration.
- 1 21. An apparatus for performing serialization of at least a portion of an object model
- 2 comprising at least one namespace, comprising:
- a processor; and

- 4 a memory storing one or more instructions that:
- 5 search for an ancestor namespace based on a current namespace, the
- 6 ancestor namespace being associated with an ancestor prefix and an ancestor uniform
- 7 resource identifier (URI), the current namespace declaration being associated with a
- 8 current prefix and current URI, such that the ancestor prefix matches the current prefix;
- 9 and
- when the current namespace is an implicit no default namespace and the
- ancestor namespace is an explicit default namespace based on, at least in part, the
- 12 ancestor prefix, generate a serialized namespace declaration for the current namespace.
- 1 22. The apparatus of claim 21 wherein the serialized namespace declaration is a
- 2 serialized XML namespace declaration.
- 1 23. The apparatus of claim 21 wherein a stack stores the ancestor namespaces, and
- 2 further comprising one or more instructions that:
- push the current prefix and URI onto the stack, wherein said instructions that
- 4 search searches the stack for the ancestor prefix.
- 1 24. The apparatus of claim 21 further comprising one or more instructions that:
- when no ancestor namespace has an ancestor prefix that matches the current
- 3 prefix, or when an ancestor namespace matches the current prefix and the ancestor URI is
- 4 different from the current URI, generate the serialized namespace declaration for the
- 5 current namespace,
- 1 25. The apparatus of claim 21 wherein the object model is associated with a query,
- 2 further comprising one or more instructions that:
- preprocess the query to identify the implicit no default namespace.
- 1 26. The apparatus of claim 21 further comprising one or more instructions that:

- wherein said instructions that generate the serialized namespace declaration for
- 3 when the implicit no default namespace is not a top constructor at a top query block,
- 4 wherein the serialized namespace declaration is no default namespace.
- 1 27. The apparatus of claim 21 wherein the object model comprises at least one
- 2 element, and a current tagging template represents the element, the tagging template
- 3 having a pointer to a previous namespace declaration in an ancestor tagging template,
- 4 wherein said one or more instructions that search searches for the ancestor namespace
- 5 using the pointer.
- 1 28. The apparatus of claim 27 wherein the tagging template further comprises an
- 2 implicit-no-default indicator to indicate that a namespace is implicit no default, further
- 3 comprising one or more instructions that:
- 4 determine whether a namespace is implicit no default based on the implicit-no-
- 5 default indicator.
- 1 29. The apparatus of claim 21 further comprising one or more instructions that:
- 2 hash the current prefix to an index of a hash anchor array, wherein said searching
- 3 accesses the hash anchor array for the ancestor namespace.
- 1 30. The apparatus of claim 1 further comprising one or more instructions that:
- 2 pass a template-chaining data structure comprising a pointer to a previous
- 3 template-chaining data structure and also comprising a pointer to the namespace of a
- 4 template, wherein said searching uses said template-chaining data structure to find the
- 5 ancestor namespace declaration.